

Claims

- [c1] 1. An imaging system comprising:
- a gantry;
 - an x-ray source coupled to said gantry, said x-ray source adapted to generate an x-ray flux, wherein a portion of said x-ray flux is adapted to become scatter radiation;
 - a first scatter detector coupled to said gantry, said first scatter detector adapted to receive said scatter radiation, said scatter detector further adapted to generate a first scatter signal in response to said scatter radiation; and
 - a host computer adapted to receive said scatter signal.
- [c2] 2. The system of claim 1, further comprising a CT detector coupled to said gantry, said CT detector adapted to generate a detector signal in response to said x-ray flux.
- [c3] 3. The system of claim 1, wherein said first scatter detector is positioned substantially adjacent to said CT detector.
- [c4] 4. The system of claim 1, wherein said first scatter detector is positioned substantially adjacent to said x-ray source.
- [c5] 5. The system of claim 1, further comprising a second scatter detector coupled to said gantry.
- [c6] 6. The system of claim 5, wherein said first scatter detector is positioned on a first side of said CT detector and said second scatter detector is positioned on a second side of said CT detector.
- [c7] 7. The system of claim 5, wherein said first scatter detector and said second scatter detector are positioned on only one side of said CT detector.
- [c8] 8. The system of claim 1, wherein said x-ray source comprises an extended x-ray source.
- [c9] 9. A method for data collection for an imaging system comprising:
- activating an x-ray source;

generating an x-ray flux;
receiving scatter radiation from said x-ray flux in at least one scatter detector;
generating a scatter signal in response to said x-ray flux; and
receiving said scatter signal in a host computer.

[c10] 10.The method of claim 9 further comprising generating a two dimensional image.

[c11] 11.A computed tomography system comprising:
a gantry;
an x-ray source coupled to said gantry, said x-ray source adapted to generate an x-ray flux;
a CT detector coupled to said gantry, said CT detector adapted to generate a detector signal in response to said x-ray flux;
a first scatter detector coupled to said gantry, said first scatter detector adapted to generate a first scatter signal in response to said x-ray flux; and
a host computer adapted to receive said detector signal and said scatter signal.

[c12] 12.The system of claim 11, wherein said x-ray source comprises an extended area x-ray source.

[c13] 13.The system of claim 11, wherein said first scatter detector is positioned substantially adjacent to said CT detector.

[c14] 14.The system of claim 11, wherein said first scatter detector is positioned adjacent to said x-ray source.

[c15] 15.The system of claim 11, further comprising a second scatter detector coupled to said gantry.

[c16] 16.The system of claim 15, wherein said first scatter detector is positioned on a first side of said CT detector and said second scatter detector is positioned on a second side of said CT detector.

[c17] 17.The system of claim 15, wherein said first scatter detector and said second scatter detector are positioned on only one side of said CT detector.